

REMARKS

Applicant would like to thank the Examiner for the careful consideration given the present application. The application has been carefully reviewed in light of the Office action, and amended as necessary to more clearly and particularly describe the subject matter which applicant regards as the invention.

Claims 1-17 remain in the application. Claims 18-20 have been cancelled. Claim 1 has been amended, first to describe the claimed plurality of mobile supporting elements as being passively displaceable and second to describe the claimed at least one positioning device as being able to actively travel along the plurality of primary transport paths. The claim amendments do not add new matter as they are described in paragraph 13 of the substitute specification. Claim 1 has also been amended to correct the term "the storage places" to read "the storage spaces."

Claims 1-17 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Specifically, the term "the storage places" is included and lacks antecedent basis. As described above, claim 1 has been amended to correct this term. Reconsideration and withdrawal of the rejection of claim 1 under section 112 is respectfully requested.

Claims 1-17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,264,133 to Herrmann (hereinafter Herrmann) in view of U.S. patent 6,155,516 to Lehrieder et al. (hereinafter Lehrieder). For the following reasons, the Examiner's rejection is traversed.

The system disclosed by Herrmann is used to handle rolls of printed products.

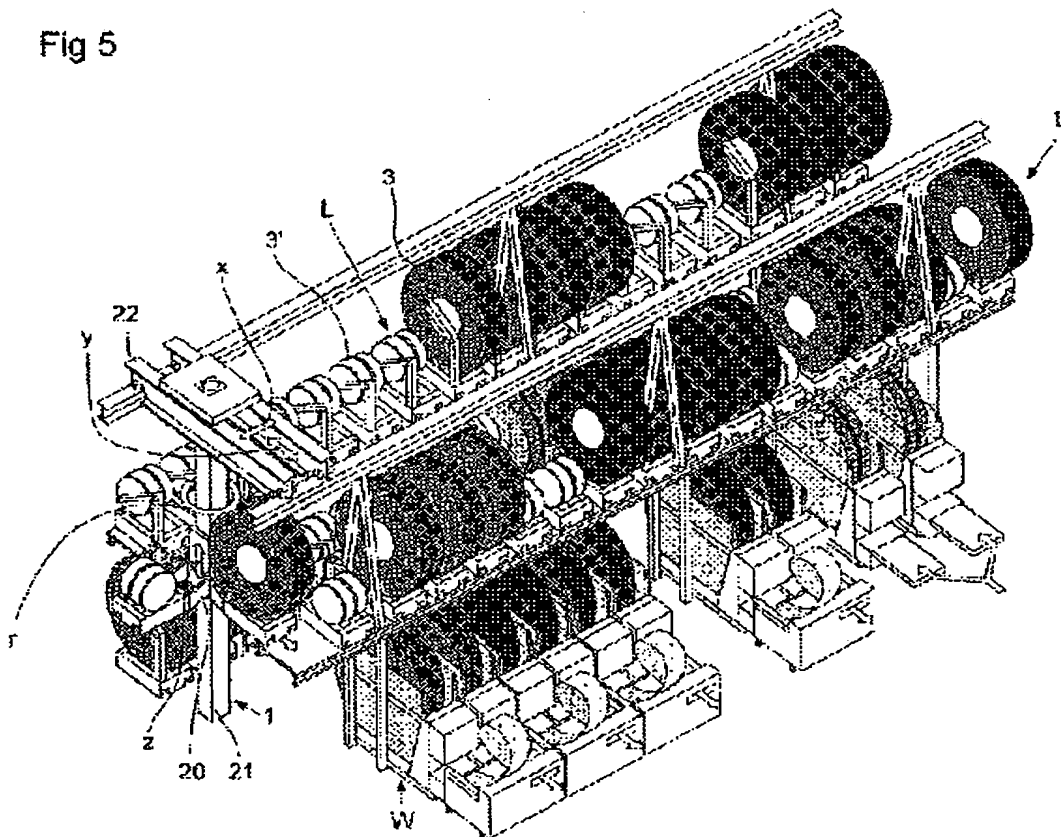
As shown at e.g. col. 5, lines 62 et seq., Herrmann includes a manipulator 1, which supports a traveling trolley 20, movable along a column 21, which is carried along by a supporting beam 22. With Herrmann, a large number of printed products are combined with a roll stand in a winding station and are separated from the roll stand in another winding station. The roll stands are either stored empty or combined with a large number of printed products. The present invention provides an advantage over Herrmann, by allowing faster movement of storage formations.

The Lehrieder reference discloses a system for preparing, storing and supplying paper rolls to be used in a printing press. According to Lehrieder, the step of preparing comprises pushing paper rolls 11 into a transport car 16. The step of supplying comprises separating the paper roll from the first transport car. Between the steps of preparing and supplying, the roll is stored together with the transport car (see col. 1, lines 37-42). Therefore, the Lehrieder system requires a number of transport cars that is at least as great as the number of stored rolls plus the number of positions to be supplied with the rolls. In the Lehrieder system, the transport cars are transported along the paths corresponding to tracks 31, 32, 33, 34, 36, 37, 38, wherein an under-the-floor drag chain conveyor is used to move the transport cars (see col. 2, lines 39-42). The step of preparing also includes reorienting the rolls together with the transport cars by turning 90 degrees. Between the steps of storing and supplying, the roll together with the transport car is transported in a perpendicular direction without reorientation of the roll and car. The present invention provides an advantage over Lehrieder by utilizing fewer transporting devices.

Even if the references were combined in the manner proposed by the

Examiner, the present invention would not result. The references, alone or in combination, do not teach or suggest "at least one positioning device, able to actively travel along the plurality of primary transport paths, for positioning and retrieving supporting elements and for transporting the supporting elements along the primary paths" and "at least one orienting device for transporting the at least one positioning device along the at least one secondary transport path and for changing an orientation thereof", wherein the positioning device "is adapted for positioning, retrieving, and transporting the supporting elements along the primary transport paths separated from the at least one orienting device" and "the at least one positioning device is adapted to be loaded to the at least one orienting device for orienting and transporting the supporting elements along the at least one secondary transport path", as required.

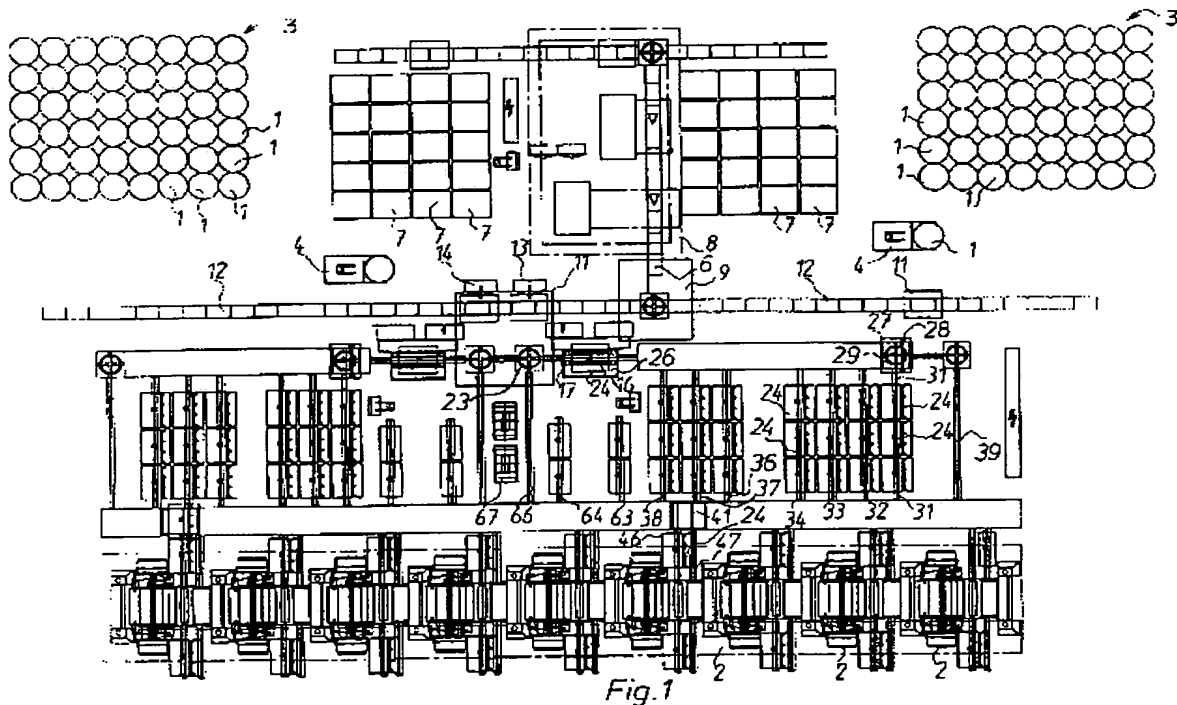
Fig 5



Rather Herrmann (Fig. 5 reproduced above) teaches a plurality of roll supports 3, and a traveling trolley 20 that may travel along a supporting beam 22 in the "y" direction as shown. The trolley 20 may also move in a "z" direction up and down a column 21. Additionally, the trolley 20, supporting beam 22 and column 21 may move in combination in an "x" direction. Finally, the trolley 20 may rotate in relation to the column 21 as shown by the reference "r". The Examiner refers to the supporting beam 22 and associated mechanism (read as the unlabeled device that provides rotation of the trolley) as an orienting device. However, in the system including supporting beam 22 and an associated mechanism as an orienting device, the trolley 20 or any other component of the manipulator 1, is not a positioning device "adapted for positioning, retrieving and transporting the supporting elements along primary transport paths *separated from the at least one orienting device.*" As noted above, the trolley 20 and column 21 move directly supported by (not separated from) supporting beam 22 in a "y" direction and in combination with (not separated from) supporting beam 22 in an "x" direction. Further, the trolley 20 is not adapted to be loaded onto the supporting beam 22 and thus, Herrmann does not teach "at least one positioning device [that] is adapted to be loaded to the at least one orienting device for orienting and transporting the supporting elements along the at least one secondary transport path".

Lehrieder (Fig. 1 reproduced below) teaches a transport car 16 onto which rolls 11 are loaded from a slat conveyor 12. A drag chain conveyor extending under the floor is preferably used for moving the transport car 16 in a direction parallel to the slat conveyor 12. The transport car 16 is loaded onto a second transport car 27. A turntable 28, which is rotatable by 90°, is attached to the second transport car 27.

Lehrieder does not teach a positioning device "adapted for positioning, retrieving, and transporting the supporting elements along the primary transport paths *separated from the at least one orienting device*" as required. Rather the second transport car 27, which has the turntable 28 attached thereto, is moved with the transport car to one of a series of selected tracks 31, 32, 33 etc. (referred to by the Examiner as primary tracks as discussed below) in an intermediate storage facility 39. Further, Lehrieder does not teach "at least one orienting device for transporting the at least one positioning device along the at least one secondary transport path", as required. Rather, the first transport car 16 moves, preferably by transport chain, along a path from turntable 23 to preparation station 26 *before* the first transport car 16 is loaded on the second transport car 27 which has a turntable 28 attached thereto as described above.



Applicant questions the Examiner's consistency in interpreting the Lehrieder

reference as described in the Examiner's comments under the heading "Response to Arguments" within the Office action. The Examiner states that the primary paths of Lehrieder are the last paths along which the rolls travel to their storage locations and correspond to the primary paths (extending in the Y-direction) of Herrmann. This would appear to represent the paths 31, 32, 33 etc. of Lehrieder. There is a plurality of these paths. However, the Examiner also refers to the primary path as being a path along which the car 16 transports a roll while being separate from the second transport car 27. This would appear to be a path between turntable 23 and preparation station 26 which is a singular path, perpendicular to paths 31, 32, 33 etc. Applicant requests clarification by the Examiner as to which path of Lehrieder corresponds to the primary paths of the claimed invention and which corresponds to the perpendicular secondary path.

Applicant also questions the Examiner's proposed combination of the teachings of Lehrieder with Herrmann. The Examiner states that it would have been obvious to provide Herrmann with positioning devices for transporting rolls along the primary paths while being separated from the orienting device as taught by Lehrieder to improve handling efficiency by allowing the orienting device to be free to transport other positioning devices while rolls are being positioned along the primary transport paths.

However, there is no suggestion in either Herrmann or Lehrieder of how the support beam and mechanism of Herrmann could be separated from the trolley to transport other positioning devices. Detachment of the support beam 22 would remove any means of support for the trolley 20 and column 21 and these elements would simply fall over.

Because both the Herrmann and Lehrieder references individually fail to teach a positioning device "adapted for positioning, retrieving, and transporting the supporting elements along the primary transport paths separated from the at least one orienting device" and at least one orienting device for transporting the at least one positioning device along the at least one secondary transport path", the combination is also deficient in teaching these claimed features.

Further, there is no motivation to combine the teaching of Hermann and Lehrieder because a system would be provided where the trolley and column would be unsupported. For these reasons, reconsideration of the rejection of independent claim 1 is respectfully requested.

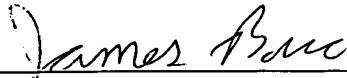
The dependent claims recite new and beneficial features of the invention in addition to those features recited in independent claim 1. However, it is respectfully submitted that the dependent claims are allowable for at least the same reasons as independent claim 1.

In light of the foregoing, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 18-0160, our Order No. FRR-12920.

Respectfully submitted,

RANKIN, HILL, PORTER & CLARK LLP

By 
James A. Balazs, Reg. No. 47401

4080 Erie Street
Willoughby, Ohio 44094-7836
(216) 566-9700